PROTECTION AND NATURAL MONOPOLIES.

Professor Patten * has advanced the protection argument one step when he shows that the advantages of free trade go to the owners of natural monopolies. His argument on this point seems indisputable. Free capital and labor are the only elements in production which are subject to unlimited competition. Consequently, the rates of interest and wages are kept at a minimum, and natural monopolies reap the gain. On this topic his remarks are well worth study. He says (page 46),—

> At an early stage in the development of any nation the price of food and material is low, and stands in direct relation to the quantity of labor needed to produce them. At this time, also, the value of finished commodities is high; that is, a small quantity of them will exchange for a large quantity of food and raw material. With every increase in the population of a nation not increasing the variety of its consumption and the uses of its land, less fertile lands and poorer natural resources are brought into use, and the price of food and raw material is raised. The increase of population, however, creates a keener competition among the producers of commodities, and as a result they bear a lower price. Every future increase in population adds to this contrast between the value of food and raw material and that of finished commodities. As all natural resources are limited in quantity, the surplus population cannot find employment upon them, but must seek work in competition with their fellows who are engaged in the manufacture of finished commodities. For these reasons a change in prices, due to increasing competition in a static state, is not nominal. Any decrease in the price of commodities does not result in an advantage to the consumers ; the advantage is secured by those who profit by the increased price of food and material. Competition lowers wages and interest, thus taking from those not exempt from its crushing power, and at the same time increasing the advantage of monopolies to a corresponding degree.
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> The policy of free trade has the same effect upon a new, progressive nation like America that would result from a large increase of its own population. The foreign countries with which it must compete in the production of commodities have a lower rate of interest and wages. Home producers must therefore lower the price of commodities, so that they can compete with foreign countries. The value of food and raw material rises, and a larger part of the total production of a nation goes to those who enjoy rent and the product of other natural monopolies, or

* *Economic Basis of Protection*, chap. v.

who engage in the transportation or exportation of food. With free trade, poorer land of the class suitable for crops demanded by foreigners will be brought into use than would be the case if the land of our country were used only to furnish food for its own inhabitants. There will result a lower margin of cultivation and higher rents, from which all consumers of food at home will be in a worse condition than they would be with less demand for these articles of food and a smaller use of the poor land of our country.

. . . There is . . . a fallacy in regarding the price for food which consumers pay as the same as the price which the farmer gets. If the markets were local, so that the farmer has direct access to the consumers, the two prices coincide. When, however, the consumer is distant from the farmer, this direct relation is destroyed. The consumer pays a high price for his food at the same time that the farmer is getting a low price. Under existing conditions America has all the disadvantages of a high price of food — by which term I always mean a high price to consumers — without the advantages which farmers should have from it. The high price merely increases the share secured by the many monopolies standing between the farmer and the consumer.

While this argument is correct, it is not complete. The only natural monopolies taken into account by Professor Patten are agricultural land and the means of transportation. But Protection has its natural monopolies. This is why Protection does not permanently benefit manufacturers and laborers. The monopolies which absorb their profits are the natural sources of raw material for manufactures, the land used for manufacturing purposes in cities or in connection with natural forces such as water power and natural gas, the land used for operatives' dwellings, as well as the means of transportation.

I. *Raw Material.*— For reasons the same as those given by Professor Patten, capital and labor, being subject to free competition, will rapidly move into any newly protected industry until profits and wages are reduced to the level of those in other industries. This is not necessarily done by lowering the prices of the finished products. Prices can with safety remain at a point just low enough to prevent the importation of foreign products. But capital and labor are forced to accept a remuneration which is reduced to the actual cost of production. If, now, prices can remain at the higher point (the price of the foreign product plus the tariff), it follows that the difference between the higher price and the lessened cost of pro-

duction goes to the owners of the raw material. This is true if the raw material is itself protected, as is usually the case. More especially is it true of those kinds of raw material which are limited in quantity and easily monopolized,— such as metals, minerals, and lumber. The production of protected but non-monopolized raw material, like wool, is forced to lower margins, resulting in higher land values for those tracts which are suitable for the product, and consequent absorption of surplus values above cost of production. The effect in this case is no different from that under free trade, where all the sheep-raisers would perhaps turn to wheat-growing. In the latter case wheat lands absorb the surplus, in the former it is pasture lands.

The following table, taken from a report of the Saginaw (Michigan) Board of Trade, will illustrate what is meant.

PRICES OF LUMBER AND STUMPAGE IN MICHIGAN, 1866–1887.

Date.	Lumber per 1,000 feet.	Stumpage per 1,000 feet.
1866	$11.50 to $12.00	$1.00 to $1.25
1867	12.00 " 12.50	1.25 " 1.50
1868	12.00 " 12.50	1.50 " 1.75
1869	12.50 " 13.00	2.00 " 2.50
1870	12.00 " 12.50	2.00 " 2.50
1871	12.50 " 13.00	2.00 " 2.50
1872	13.00 " 13.50	2.00 " 2.50
1873	11.50 " 12.00	2.00 " 2.50
1874	10.50 " 11.00	2.00 " 2.50
1875	9.50 " 10.00	2.25 " 2.75
1876	9.00 " 9.50	2.25 " 2.75
1877	9.25 " 9.75	2.25 " 2.75
1878	9.50 " 10.00	2.25 " 2.75
1879	10.50 " 11.00	2.50 " 3.35
1880	11.50 " 12.00	2.75 " 3.00
1881	12.50 " 13.00	3.00 " 4.00
1882	14.00 " 14.50	3.50 " 4.50
1883	13.50 " 14.00	4.00 " 5.00
1884	12.50 " 13.00	4.00 " 5.00
1885	12.50 " 13.00	4.50 " 6.50
1886	12.50 " 13.00	4.50 " 6.50
1887	12.50 " 13.00	4.50 " 6.50

The lumber industry is peculiarly adapted to demonstrate the relations between capital and labor on the one hand and the owners of raw material on the other, because the lumber

(stumpage) can be measured and sold before it has been cut, and we can get definite prices for it before capital and labor have been applied to it, for comparison with prices of the manufactured product.

From these figures it appears that the price of pine lumber remained at about the same point for twenty years, so that the consumers did not gain from domestic competition. But, while in 1866 capital and labor received for cutting, hauling, and sawing the lumber 90 to 92 per cent. of the total value of the product, in 1887 they received only 50 to 64 per cent. Capital and labor were forced by competition to yield whatever advantages were gained from improvements, inventions, and economies to the owners of the raw material. The share of the latter increased sixfold, while both the rate of interest and the rate of wages were lowered.

For the other kinds of natural monopolies it is difficult to find statistical data, yet the report of the Massachusetts Bureau of Statistics of Labor for 1890 on Net Profits will give us some assistance. For the sake of simplicity we shall consult the report on the lumber industry. It appears (p. 342) that the "stock" used in the lumber manufacture in Massachusetts accounts for 59.44 per cent. of the selling price of the finished product. If we may suppose that 40 per cent. of the cost of stock goes to the owners of raw material, then these receive 23.77 per cent. of the selling price of manufactured lumber.

II. *Operatives' Dwellings.*—Manufactures require a large urban population. This involves increased demand for dwelling accommodations, with consequent rise in ground rents. If it be admitted that wages are dependent on the standard of living, it would follow that, if operatives paid no rent whatever for their dwellings, wages could be reduced by the amount of the rents now paid. Ground rent paid by operatives is therefore a part of the cost of production in manufactures, which goes to the owners of a natural monopoly. In the manufacture of lumber wages are 17.69 per cent. of the selling price. According to the Massachusetts report of 1885, rents absorbed 19.74 per cent. of the total expenditure of workingmen's families. Probably three-fourths of this is due

to ground rents. If 15 per cent. of wages goes to ground rents, this element in the selling price of lumber is 2.65 per cent.

III. *Factory Sites.*— Rent paid by lumber manufacturers is .40 per cent. of the selling price. In addition to this item it appears that 13.33 per cent. of the capital is invested in land. The commissioner estimates the average net profit of the industry at 7.77 per cent. This would assign to that part of capital invested in land 1.03 per cent. of the selling price. Adding to the percentage for rent, we have 1.43 per cent. of the selling price assigned to so much of the natural monopoly, land, as is occupied by the factories.

IV. *Transportation.*— It is almost impossible to discover what share of transportation charges is due to monopoly. From the reports of the Statistician of the Interstate Commerce Commission it might be inferred that 10 per cent. is a fair allowance. Freight is charged in the lumber industry with 2.91 per cent. of the selling price. For our purposes we should add transportation charges on the finished product in passing from the factories to the dealers. Supposing this to be as much as the freight charges paid by the manufacturers, we have 5.82 per cent. of the selling price. The share of monopoly is therefore .58 per cent.

These are the more prominent natural monopolies which absorb the benefits of protection. Transportation is the only one which would have greater significance under free trade. Collecting our estimates, we have

PERCENTAGES OF SELLING PRICE OF LUMBER FALLING TO NATURAL MONOPOLIES.

Cost of stock,	23.77
Operatives' dwellings,	2.65
Rent and factory sites,	1.43
Transportation,	.58
Total,	28.43

It thus appears that in the manufacture of lumber at least 28 per cent. of the selling price of the product goes to the owners of the natural monopolies involved. The same results could doubtless be shown in the iron and coal industries. It

is doubtful whether Professor Patten can demonstrate such importance for natural monopolies under a free-trade *régime.* At any rate, the question between free trade and protection is, Which classes of natural monopolies get the benefit? Under protection it is manufacturing sites, dwelling sites, and limited raw material. Under free trade it would be agricultural land and transportation.

The controversy between protectionists and free traders is a matter of inferior significance. Whichever side wins, natural monopolies absorb the gain. Protectionists could materially strengthen their position — logically, if not politically — by devising methods for cheapening raw material. Iron, coal, and lumber are the bases of manufactures. If these were cheapened, Americans would not need protection, but could compete with the world in all markets. The following are tentative propositions for effecting this result: —

1. Free trade in raw material.

2. Special taxes on speculative holdings of mines, quarries, and timber lands.

3. Remove local taxes from capital and labor, and impose them on natural monopolies.

JOHN R. COMMONS.

OBERLIN COLLEGE.

"THE OVERPRODUCTION FALLACY."

I.

In the April number of this *Journal* Mr. Uriel H. Crocker publishes what purports to be a rehabilitation of the "over-production" theory of industrial depression.* The paper deals specifically with Mill's discussion of the question, and it is particularly Mill's position that is claimed to have been refuted. It may, therefore, not seem ungracious to call to mind that, so long as we employ "demand" and "supply" in the meaning attached to those terms by Mill and commonly

* *Quarterly Journal of Economics*, April, 1892, p. 352.